WHAT IS CLAIMED IS:

1. An anti-adhesion patch, comprising:
a collagenous material; and
at least one non-living cellular component.

2. The anti-adhesion patch of claim 1, wherein said collagenous material is collagen type I or a combination of collagen type I and a co-component.

3. The anti-adhesion patch of claim 2, wherein said co-component is selected from the group consisting of elastin, interstitial collagens, collagen type III, V and IX, glycoproteins and proteoglycans.

4. The anti-adhesion patch of claim 1, wherein said collagenous material is from a natural source or a recombinant source.

5. The anti-adhesion patch of claim 1, wherein said non-living cellular component is from a natural source or a recombinant source.

6. The anti-adhesion patch of claim 5, wherein said non-living cellular component from a natural source is human connective tissue cell.

7. The anti-adhesion patch of claim 6, wherein said human connective tissue cell is a fibroblast cell or a vascular smooth muscle cell.

8. The anti-adhesion patch of claim 7, wherein said fibroblast cell is a dermal fibroblast cell.

9. The anti-adhesion patch of claim 5, wherein said non-living cellular component from a recombinant source is an engineered cell.

10. A method of constructing an anti-adhesion patch, comprising the steps of:
(a) mixing human connective tissue cells with a collagenous material;
(b) incubating the resulting mixture in a matrix organization medium to stimulate the cells to adapt to and organize the collagenous material into a mono-cellular tissue equivalent having desirable dimensions and mechanical properties;

(c) treating the tissue equivalent to eliminate the cells; and

(d) confirming the absence of viable cells in the tissue equivalent after the treatment, wherein said tissue equivalent may be used as an anti-adhesion patch.

11. The method of claim 10, wherein said collagenous material is in an acid solution and first neutralized at 4°C before the mixing step.

12. The method of claim 11, wherein said acidic solution is hydrochloric solution.

13. The method of claim 10, wherein said human connective tissue cell is a fibroblast cell or a vascular smooth muscle cell.

14. The method of claim 13, wherein said fibroblast cell is a dermal fibroblast cell.

15. The method of claim 10, wherein said collagenous material is collagen type I or a combination of collagen type I and a co-component.

16. The method of claim 15, wherein said co-component is selected from the group consisting of elastin, interstitial collagens, collagen type III, V and IX, glycoproteins and proteoglycans.

17. The method of claim 10, wherein said collagenous material is from a natural source or a recombinant source.

18. The method of claim 10, wherein said matrix organization medium contains fetal bovine serum.

19. The method of claim 10, wherein said matrix organization medium is a serum-free cocktail of growth factors selected from the group consisting of fibroblast growth factor (FGF), epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factor beta (TGF_{β}) and a mixture thereof.

20. The method of claim 19, wherein said cocktail of growth factors are in the presence of growth promoters.

21. The method of claim 20, wherein said growth promoter includes transferrin and insulin.

22. The method of claim 10, wherein the cell-elimination treatment includes nutrient deprivation, antibiotics treatment and anti-mitotics treatment.

23. The method of claim 22, wherein said antibiotics includes puromycin, amphoteracin and mitomycin.

24. The method of claim 22, wherein said anti-mitotics is 5-flurouracil.

25. A method for preventing tissue adhesions between organs and other tissues being operated upon during surgical procedures, comprising the step of:

attaching an anti-adhesion patch to one of the surfaces of the tissues being operated upon, wherein said anti-adhesion patch comprises a collagenous material and at least one non-living cellular component, wherein said anti-adhesion patch participates in formation of adhesion and is biodegradable during the recovery.

26. The method of claim 25, wherein said tissue being operated upon is a heart.

27. The method of claim 25, wherein said anti-adhesion patch is attached to the traumatized tissues using a tissue glue.

28. The method of claim 27, wherein said tissue glue is a fibrin tissue glue or another type of bio-adhesive.

29. The method of claim 28, wherein said another type of bio-adhesive is Nitinol Coupler.